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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,304	11/14/2003	Byung-in Ma	1793.1082	8870

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EXAMINER

NGUYEN, LINH THI

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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10/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/712,304

Applicant(s)

MA ET AL.

Examiner

Linh T. Nguyen

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) 11-19 and 28-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 20-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 20-22 are rejected under 35 U.S.C. 102(b) as being unpatentable by Kobayashi (US Patent Number 6097695).

In regards to claims 1 and 20, Kobayashi discloses an apparatus and method for reproducing information from an optical information storage medium which comprises a lead-in area, a user data area, and a lead-out area (Fig. 11), whereon optical information storage medium-related information is recorded in at least a portion of the lead-in area and reproduction-related user data are recorded in a remaining area of the optical information storage medium (Fig. 10), the apparatus comprising: a light source which radiates a laser light beam (Fig. 7, element 13); an objective lens which condenses the laser light beam to be focused on the optical information storage medium (Column 7, lines 13-15); a photodetector which receives the laser light beam reflected from the optical information storage medium and which comprises first and second photodiodes which independently convert a received optical signal into first and second electric signals (Column 7, lines 49-61), respectively; a reproduction-related user (RRU) data demodulator which demodulates the reproduction-related user data from a sum signal of the first and second electrical signals (Column 8, lines 8-19); and a read only memory-permanent information control (ROM-PIC) data demodulator which

demodulates the optical information storage medium-related information from the sum signal (Fig. 6, ADIP data are read only information); .

In regards to claims 2 and 21, Kobayashi discloses the optical information reproducing apparatus and method, wherein: the RRU data (user data DU) demodulator reproduces the reproduction-related user data which is recorded on the optical information storage medium according to a run length-limited (RLL) modulation method (Column 13, lines 31-39), and the ROM-PIC data (ADIP data are read only data) demodulator reproduces the optical information storage medium-related information which is recorded on the optical information storage medium according to a bi-phase modulation method (Column 15, lines 19-20).

In regards to claims 3 and 22, Kobayashi discloses the optical information reproducing apparatus and method, wherein the RLL modulation method is an RLL (1, 7) modulation method (Column 14, lines 1-7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US Patent number 6097695) in view of Ahn (US Publication number 20060203676).

In regards to claim 4, Kobayashi discloses everything that is claimed in claim 1 above. However, Kobayashi does not disclose the RLL modulation method is an RLL (2, 10) modulation method.

In the same field of endeavor, Ahn discloses the RLL modulation method is an RLL (2, 10) modulation method (Paragraph [0018]). At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the Kobayashi apparatus of recording/reproducing to include the RLL (2, 10) modulation as taught by Ahn et al. The motivations for doing so would have been to improve the shape of the mark, therefore, improve the recording/reproducing (Paragraph [0011]).

In regards to claims 5 and 22, Kobayashi does not but Ahn discloses the optical information reproducing apparatus and method, wherein the optical information storage medium-related information is recorded as a mark and a space having a length of nT , and a mark and a space having a length of $2nT$, where n is an integer in a range where $2 \leq n \leq 8$ (Paragraph [0016]). The motivation is the same as claim 4 above.

In regards to claim 6, Kobayashi does not but Ahn discloses the optical information reproducing apparatus, further comprising a modulation code detector (Fig. 3, element 3) which detects from the sum signal whether the optical information storage

medium comprises a plurality of different modulation codes by detecting the mark and the space having the length of nT , and the mark and the space having the length of $2nT$ (Paragraph [0045], lines 21-23). The motivation is the same as claim 4 above.

In regards to claims 7 and 25, Kobayashi does not but Ahn discloses the optical information reproducing apparatus and method, wherein the optical information storage medium-related information is recorded as a mark and a space having a length of nT , and a mark and a space having a length of $2nT$, where n is an integer in a range where $2 \leq n \leq 8$ (Paragraph [0045], lines 21-23). The motivation is the same as claim 4 above.

In regards to claims 8, 9 and 26, Kobayashi discloses the optical information reproducing apparatus and method, further comprising a modulation code detector which detects from the sum signal (Fig. 7, element 23) whether the optical information storage medium comprises a plurality of different modulation codes by detecting the mark and the space having the length of nT , and the mark and the space having the length of $2nT$ recorded according to the bi-phase modulation method (Column 5, lines 22-33).

In regards to claims 10 and 27, Kobayashi does not but Ahn discloses the optical information reproducing apparatus and method, further comprising a modulation code detector which detects from the sum signal whether the optical information storage

medium comprises a plurality of different modulation codes (Fig. 3, element 3; Paragraph [0045], lines 1-11). The motivation is the same as claim 4 above.

Response to Arguments

Applicant's arguments filed 08/16/07 have been fully considered but they are not persuasive.

In response to applicant's arguments, the recitation "whereon optical information storage medium-related information is recorded in at least a portion of the lead-in area but not in the user data area" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

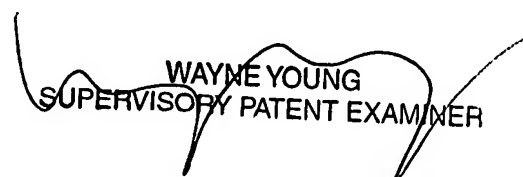
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN

October 22, 2007


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER